

Title (en)

ABSORBENT CORE COMPRISING A HIGH LOFT CENTRAL LAYER AND SUPERABSORBENT PARTICLES

Title (de)

ABSORBIERENDER KERN MIT EINER ZENTRALEN SCHICHT MIT HOHEM VOLUMEN UND SUPERABSORBIERENDEN TEILCHEN

Title (fr)

NOYAU ABSORBANT COMPRENANT UNE COUCHE CENTRALE À EFFET GONFLANT ÉLEVÉ ET DES PARTICULES SUPERABSORBANTES

Publication

**EP 3881814 A1 20210922 (EN)**

Application

**EP 20163636 A 20200317**

Priority

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Abstract (en)

An absorbent core (28) for use in an absorbent article (20) having a high loft central layer (43) between a top layer and a bottom layer and superabsorbent particles (SAP) at least partially distributed within the high loft layer. The superabsorbent polymer particles have a time to reach an uptake of 20 g/g (SAP T20) of less than 220 s, and/or the absorbent core has a time to reach an uptake of 15 g/g (Core T15) of less than 200 s, and/or the absorbent core has a permeability (core K20) of more than  $6.0 \times 10^{-8}$  cm<sup>2</sup>/s. These properties are measured according to the K(t) Test Method as described in the application.

IPC 8 full level

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CPC (source: EP US)

**A61F 13/15658** (2013.01 - US); **A61F 13/15699** (2013.01 - US); **A61F 13/15731** (2013.01 - US); **A61F 13/15747** (2013.01 - US); **A61F 13/5323** (2013.01 - EP US); **A61F 13/534** (2013.01 - EP US); **A61F 2013/530489** (2013.01 - US); **A61F 2013/530532** (2013.01 - EP); **A61F 2013/530547** (2013.01 - EP); **A61F 2013/530591** (2013.01 - EP); **A61F 2013/5349** (2013.01 - EP US)

Citation (applicant)

- WO 9511654 A1 19950504 - KIMBERLY CLARK CO [US]
- WO 2008155699 A1 20081224 - PROCTER & GAMBLE [US], et al
- WO 2016106021 A1 20160630 - PROCTER & GAMBLE [US]
- WO 2020025401 A1 20200206 - BASF SE [DE]
- WO 2020032280 A1 20200213 - NIPPON CATALYTIC CHEM IND [JP]
- WO 2020032281 A1 20200213 - NIPPON CATALYTIC CHEM IND [JP]
- WO 2020032282 A1 20200213 - NIPPON CATALYTIC CHEM IND [JP]
- WO 2020032283 A1 20200213 - NIPPON CATALYTIC CHEM IND [JP]
- WO 2020032284 A1 20200213 - NIPPON CATALYTIC CHEM IND [JP]
- WO 0071067 A1 20001130 - YUHAN KIMBERLY LTD [KR], et al
- US 7744576 B2 20100629 - BUSAM LUDWIG [DE], et al
- US 2011268932 A1 20111103 - CATALAN KEMAL VATANSEVER [US], et al
- US 2011319848 A1 20111229 - MCKIERNAN ROBIN LYNN [US], et al
- US 2011250413 A1 20111013 - LU JON AARON [US], et al
- WO 2006083584 A2 20060810 - PROCTER & GAMBLE [US], et al
- WO 2007047598 A1 20070426 - PROCTER & GAMBLE [US], et al
- WO 2007046052 A1 20070426 - PROCTER & GAMBLE [US], et al
- WO 2009155265 A2 20091223 - PROCTER & GAMBLE [US], et al
- WO 2009155264 A2 20091223 - PROCTER & GAMBLE [US], et al
- EP 3391961 A1 20181024 - PROCTER & GAMBLE [US]
- US 5300565 A 19940405 - BERG CHARLES J [US], et al
- US 5180622 A 19930119 - BERG CHARLES J [US], et al
- US 5149334 A 19920922 - ROE DONALD CARROLL [US], et al
- US 5102597 A 19920407 - ROE DONALD C [US], et al
- US 5492962 A 19960220 - LAHRMAN FRANK H [US], et al
- EP 3056521 B1 20190410 - LG CHEMICAL LTD [KR]
- EP 1512712 B1 20100728 - NIPPON CATALYTIC CHEM IND [JP]
- US 10414876 B2 20190917 - JANG MIN-SEOK [KR], et al
- US 7429009 B2 20080930 - NAGASAWA MAKOTO [JP], et al
- EP 2011803 B1 20110907 - SUMITOMO SEIKA CHEMICALS [JP]
- EP 2944376 A1 20151118 - PROCTER & GAMBLE [US]
- US 4340706 A 19820720 - OBAYASHI SHIGEJI, et al
- US 5849816 A 19981215 - SUSKIND STUART P [US], et al
- US 2009192035 A1 20090730 - STUEVEN UWE [DE], et al
- US 2009258994 A1 20091015 - STUEVEN UWE [DE], et al
- US 2010068520 A1 20100318 - STUEVEN UWE [DE]
- WO 2015041784 A1 20150326 - PROCTER & GAMBLE [US]
- CN 101797201 A 20100811 - XIAMEN BLUEOCEAN BUSINESS CO LTD
- US 8585666 B2 20131119 - WEISMAN PAUL THOMAS [US], et al
- EP 2535698 A1 20121219 - PROCTER & GAMBLE [US]
- EP 2535698 A1 20121219 - PROCTER & GAMBLE [US]
- "Absorbency", 1982, ELSEVIER, pages: 42 - 43
- J.M. COULSON, J.F. RICHARDSON: "Chemical Engineering", vol. II, 1978, PERGAMON PRESS, pages: 122 - 127
- CHEMICAL ABSTRACTS, Columbus, Ohio, US; abstract no. 68439-50-9

Citation (search report)

- [XYI] EP 2901992 A1 20150805 - ONTEX BVBA [BE]
- [XYI] US 2015080821 A1 20150319 - PERI ANDREA [DE], et al
- [Y] US 2016175169 A1 20160623 - BIANCHI ERNESTO GABRIEL [DE], et al

- [Y] ANONYMOUS: "Schauch HVDE 235 Superabsorber", 25 December 2014 (2014-12-25), XP055724736, Retrieved from the Internet <URL:<https://www.amazon.de/Schauch-Superabsorber-Feuchtigkeitsschützer-Wasserspeicherung-Betreuungsbereichen/dp/B00VD0N378>> [retrieved on 20200824]

Cited by

EP4190288A1; WO2023099782A1; EP4190287A1; WO2023099778A1

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BA ME

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